

IN THE SPECIFICATION

Pages 7 and 8, the paragraph bridging these pages from page 7, line 6 to page 8, line 10, replace the bridging paragraph with:

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Fig. 2 illustrates the configuration of the road side station. The road side station ~~121200~~ 121 comprises a computer 250 for processing information; a hard disk 240 serving as a non-volatile storage medium for storing programs and data; a radio communication unit 230 for performing radio communications with a vehicle (vehicles); and an external device 220 such as a camera, a variety of sensors, or the like. The computer 250 comprises a processor 201 for processing operations involved in the execution of a program; a ROM 202 for storing a basic program such as an operating system (OS), and basic data; a RAM 203 for use as a work area during the execution of a program and as a temporary storage area for data; a communication interface 211 for connection with a road side communication network ~~260~~ 100; an external storage interface 212 for connecting the hard disk 240; an external device interface 213 for transmitting and receiving data to and from the external device 220; and a communication interface 214 for transmitting and receiving data to and from a radio communication device. These components communicate

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data with one another through a bus 210. A program executed on the processor 201 can communicate with a single or a plurality of vehicles through the communication interface 214 and the radio communication device 230, and communicate with other road side stations through the communication interface 211 and the road side communication network ~~260~~ 100. The program further collects information such as external video, audio, vibration, temperature, humidity, atmospheric pressure and so on through the external device interface 213 and the external device 220.

Pages 8 and 9, the paragraph bridging these pages from page 8, line 11 to page 9, line 8, replace the bridging paragraph with:

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Fig. 3 illustrates the configuration of a vehicle-equipped device. The vehicle-equipped device 300 is a device equipped in a vehicle, and may be represented, for example, by a car navigation system. The vehicle-equipped device 300 comprises a computer 350; a man-machine interface 320; a radio communication unit 330; a hard disk 340 serving as a non-volatile external storage device; and an external device 360. The man-machine interface 320 may comprise a liquid crystal display having, for example, a touch panel function for

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displaying images for a driver in the vehicle and for reading information entered by the driver. The radio communication unit 330 is a unit for radio communications with road side stations. The hard disk 340 is a storage device for storing map information and so on, and may be replaced with an arbitrary non-volatile storage device such as a CD-ROM drive, a DVD-ROM drive or the like. The external device 360 may comprise a receiver for receiving data, for example, in accordance with the Global Positioning System (GPS) developed by Department of National Defense Defense of the United States, and capture data necessary to compute coordinate information such as latitude and longitude. The external device 360 may be also connected to a variety of sensors for sensing vehicle conditions in addition to the GPS receiver.

Page 11, the first full paragraph, lines 8 to 10, replace the paragraph with:

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Fig. 4B illustrates the configuration of the relay device. The relay device 440 comprises a computer 410 450 410 and an external device 480.

Pages 11 and 12, the paragraph bridging these pages from page 11, line 11 to page 12, line 4, replace the bridging paragraph with:

The computer ~~410450~~ 410 comprises a processor 451 for executing a program; a ROM 452 for storing programs; a RAM 453 for use as a work area for a program; an external device interface 454; and communication interfaces 461, 462, 463. The respective components mutually transmit and receive data through a bus 460. The external device 480 may comprise, for example, a GPS receiver from which the processor 451 receives data through the external device interface 454 to compute location information such as longitude and latitude. Each communication interface is connected to one segment. The processor 451 can transmit and receive a message through the communication interface 461 using a segment 471; transmit and receive a message through the communication interface 462 using a segment 472; and transmit and receive a message through the communication interface 463 using a segment 473. The number of communication interfaces incorporated in each relay device 440 is two in a relay device ~~410450~~ 410(a) installed beside the road; three for a relay device ~~410450~~ 410(b) installed near a three-forked road; and four for a relay device ~~410450~~ 410 installed near an intersecting street.

Page 21, the first full paragraph, lines 6 to 26, replace the paragraph with:

Fig. 5B shows a message flow when a relay device is included, i.e., when a road is branched into two. A relay device ~~410580~~ 410 is connected to three segments (segments 500(a) - 500(c)) installed along the road. Each segment is connected to a plurality of road side stations. In the example shown in Fig. 5B, the segments 500(a) - 500(c) are connected to road side stations 121(a) - 121(c), respectively.

A vehicle 111 is running on the road, and advancing toward the branched road. As the vehicle 111 transmits a request message 531, the road side station 121(a) receives the request message 531, and broadcasts the request message 532(a) to the segment 500(a). The broadcast request message 532(a) is received by all of the relay device and the road side stations connected to the segment 500(a). The processing executed in each of the road side stations and the message format of the request message 532(a) are identical to those shown in the example of Fig. 5A. In the following, the description will be centered on a processing scheme for the relay device 410.

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Pages 21 and 22, the paragraph bridging these pages from page 21, line 27 to page 22, line 14, replace the bridging paragraph with:

Fig. 9 illustrates a processing flow executed by the relay device 410. Upon receipt of the request message 532(a) (step 901), the delay relay device 410 read location information 602 in the request message 532(a), and compares the read location information 602 with location information registered in the location registration table stored therein (step 902). The location information registered in the location information table indicates the location at which the relay device is installed. Alternatively, the location information may indicate a location of the vehicle at which a road side station, relayed by the relay device, can execute requested processing. Further alternatively, the location information may indicate a location at which a road side station, relayed by the relay device, is installed.

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Page 28, the first full paragraph, lines 2 to 11, replace the paragraph with:

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In this event, the vehicle 111(a) which has transmitted the request message 531 may be running. If the vehicle 111(a) is stationary, the road side station 121(a) which has received

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the request message 531 receives the response message 1323(b), and transmits a response message 1323(a) to the vehicle 111(a). However, if the running vehicle 111(a) has already moved to a location indicated by a vehicle 111(b), the road side-vehicle station 121(a) can no longer transmit the response message 1323(a) to the vehicle 111(a).

Page 33, the first full paragraph, lines 1 to 25, replace the paragraph with:

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For example, this may be the case where the same processing or data is downloaded to a plurality of road side stations for multiplexing the processing. In this event, a plurality of response-message messages 1323(b) are received for the same processing request. When a road side station receives a plurality of response messages 1323(b) for the same processing request, the road side station receives only the first response message 1323(b) for processing. Determination at step 1703 is made to discard the second and subsequent response messages 1323(b) for a single processing request. When the road side station receives response messages 1323(b) for the same processing request within a fixed period of time, i.e., when the road side station receives response messages 1323(b) containing the same service code 601 and vehicle

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number 1504 (step 1703), the road side station discards the response messages 1323(b) (step 1711), followed by the termination of the processing flow. When the road side station does not receive other response messages 1323(b) for the same processing request (step 1703), the road side station reads location information 1 602 in the response message 1531(a), and compares the read location information 1 602 with location information registered in the location information table 850 stored therein.

Pages 37 and 38, the paragraph bridging these pages from page 37, line 28 to page 38, line 13, replace the bridging paragraph with:

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In the processing schemes involved in the cases (I), (II) shown herein, if the vehicle has changed its destination, the vehicle will take a different course from that indicated by the route information transmitted thereby in the request message. In this event, some problems would arise, for example, the vehicle cannot receive the response message or cannot execute appropriate processing, or the like. To solve these problems, the vehicle again transmits the request message when it selects a different route from that indicated by the route information in the request message, after the

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request message has been transmitted, and takes a different road from that indicated by the route information at a branch point or the like.

Pages 40-43, the paragraph bridging these pages from page 40, line 26 to page 43, line 2, replace the bridging paragraph with:

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As the vehicle 111(a) collides with the vehicle 111' from behind, the impact of the collision is sensed by an acceleration sensor contained in the vehicle 111(a) to automatically detect that the collision has occurred. The acceleration sensor forms part of the external device 360 in the vehicle-equipped device 300, and its data is read by the processor 301 through the external interface 314.—upon Upon detection of the occurrence of the collision from the magnitude of a change in acceleration, the processor 301 transmits a request message 531, through a radio communication, which is received by a nearby road side station 121(c). Upon receipt of the request message 531, the road side station 121(c) broadcasts a request message 532 to the road side communication network 100. These messages are received by all road side stations connected to the same segment. The road side stations 121(a) - 121(c) autonomically

determine from the received request message 532 and a service code table 800 that the road side station 121(c) requesting the execution of processing is a road side station installed near the location at which the accident occurred, and that the requested processing can be executed, by executing the processing flow illustrated in Fig. 7. Here, the determination as to whether the road side station is installed near the location at which the accident occurred is made by a trajectory followed by the colliding vehicle 111(a) a predetermined period of time before the time the accident occurred, and whether the respective road side stations 121(a) - 121(c) are located within a predetermined distance.

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Alternatively, the determination may be made by checking whether the camera possessed by each road side station 121(a) - 121(c) has captured at least a portion of the trajectory followed by the vehicle 111(a) the predetermined period of time before the time the accident occurred. In other word, a road side station which has captured a portion of the trajectory may be determined to be located in the neighborhood. Determination as to whether a camera has captured the trajectory may be made by checking whether an image captured by the camera includes the vehicle 111(a) based on the transmitted vehicle number. Also, a predetermined

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number of road side stations from the location at which the accident occurred in the direction opposite to the advancing direction of the vehicle 111(a) may be determined to be located in the neighborhood. Fig. 21 shows an exemplary structure of a request message in the accident treatment service system. A service code 2151 stores a service code indicative of an emergency service; location information 2152 stores coordinate information for identifying the location of the vehicle 111(a) which has caused the collision accident; and route information 2153 stores information on roads to a destination of the vehicle. A service parameter 2154 stores a parameter indicating that a backup of the image is requested. For example, the service code 2151 is a two-byte integer value; the location information 2152 is array data of integer values; the route information 2153 is string data; and the service parameter 2154 is array data of integer values.